

Notice of Allowability

Application No.

10/707,676

Examiner

Nitin Patel

Applicant(s)

SUNG ET AL.

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/2/2004.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 12/19/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Nitin Patel

REASON FOR ALLOWANCE

1. Claims 1-20 is allowed.
2. The following is an examiner's statement of reason for allowance:

Liaw et al., (U.S. patent No. 6,593,934) teaches in fig.7A having a main controller connected to the sensors to serve as a main control circuit for the system and including a CPU and a memory for parameter calculation and data storage. The main controller is connected to a programmable Gamma voltage generating means 30 that generates a set of gamma reference voltages output into the input terminal of a set of switches and output of switches connected to the buffers circuit (60).

Kang et al., (US 20020063666) shows in fig.8 and fig.9 a gamma voltage generator (84) having a multi channel DAC and output of the DAC is inputted into plurality of buffers (94).

Kim et al., (US 2003/0169248) teaches in fig.2a timing controller 40 performing gate on/off control, providing data for image display referred to as image data and control signals for the source drivers 30 and generating and outputting digital data for gamma voltages to D/A converter 50 generating a plurality of gamma voltages by converting the digital gamma data into analog signals and supplying the gamma voltages to the source driver IC 30.

3. The prior art fails to teach or suggest a driving circuit of a display, for converting a first display data into an image driving signal, comprising: a first display data; a gamma voltage generator, for providing a plurality of first gamma voltages; a plurality of first buffers, wherein each of the first buffers is provided for receiving

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each of the first gamma voltages to generate a second gamma voltage respectively; and a converter, for receiving the second gamma voltages and the first display data to output an image driving signal by selecting one of the second gamma voltages according to the first display data as claimed in claim 1.

The prior art fails to teach or suggest a flat panel display, comprising: a display panel, having a plurality of pixels; a timing controller, for outputting a scanning signal, a first display data and a horizontal synchronous signal; a set of gate driving circuits, having a plurality of gate drivers for receiving the scanning signal; and a set of source driving circuits having a plurality of source drivers, wherein each of the source drivers converts a first display data into an image driving signal according to a timing of the horizontal synchronous signal, wherein the source driver comprises: a gamma voltage generator, for providing a plurality of first gamma voltages; a plurality of first buffers, wherein each of the first buffers is provided for receiving each of the first gamma voltages to generate a second gamma voltage respectively; and a converter, for receiving the second gamma voltages and the first display data to output the image driving signal by selecting one of the second gamma voltages according to the first display data as claimed in claim 8.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin Patel whose telephone number is 571-272-7677. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H. Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nitin Patel
Examiner
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